

GLYCIDOL**0159**

October 2005

CAS No: 556-52-5
 RTECS No: UB4375000
 UN No: 2810
 EC No: 603-063-00-8

2,3-Epoxy-1-propanol
 Oxirane methanol
 3-Hydroxypropylene oxide
 $C_3H_6O_2$
 Molecular mass: 74.1

TYPES OF HAZARD/EXPOSURE	ACUTE HAZARDS/SYMPOTMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Combustible.	NO open flames. NO contact with incompatible materials (see Chemical Dangers).	Powder, alcohol-resistant foam, water spray, carbon dioxide.
EXPLOSION	Above 72°C explosive vapour/air mixtures may be formed.	Above 72°C use a closed system, ventilation.	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		AVOID ALL CONTACT! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
Inhalation	Cough. Sore throat. Dizziness. Drowsiness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	MAY BE ABSORBED! Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain.	Face shield or eye protection in combination with breathing protection:	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Diarrhoea. Nausea. Vomiting.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.
SPILLAGE DISPOSAL	PACKAGING & LABELLING		
Personal protection: chemical protection suit including self-contained breathing apparatus. Collect leaking and spilled liquid in sealable glass or mild steel containers as far as possible. Absorb remaining liquid in dry sand or inert absorbent and remove to safe place.	T Symbol R: 45-60-21/22-23-36/37/38-68 S: 53-45 UN Hazard Class: 6.1 UN Pack Group: III		Do not transport with food and feedstuffs.
EMERGENCY RESPONSE	SAFE STORAGE		
Transport Emergency Card: TEC (R)-61GT1-III.	Store only if stabilized. Cool. Dry. Well closed. Ventilation along the floor. Separated from strong bases, strong acids, food and feedstuffs.		

IMPORTANT DATA

Physical State; Appearance
COLOURLESS SLIGHTLY VISCOUS LIQUID

Chemical dangers

The substance may polymerize. The substance decomposes on contact with strong acids and bases, metal salts or metals, causing fire and explosion hazard. Attacks plastic and rubber.

Occupational exposure limits

TLV: 2 ppm as TWA; A3 (confirmed animal carcinogen with unknown relevance to humans); (ACGIH 2005).
MAK: skin absorption (H); Carcinogen category: 2; (DFG 2005).

Routes of exposure

The substance can be absorbed into the body by inhalation of its vapour, through the skin and by ingestion.

Inhalation risk

A harmful contamination of the air can be reached rather quickly on evaporation of this substance at 20-C.

Effects of short-term exposure

The substance is irritating to the eyes, the skin and the respiratory tract. The substance may cause effects on the central nervous system. Exposure far above the OEL could cause lowering of consciousness.

Effects of long-term or repeated exposure

This substance is probably carcinogenic to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

PHYSICAL PROPERTIES

Boiling point (decomposes): 166-C
Melting point: -45-C
Relative density (water = 1): 1.1
Solubility in water: miscible
Vapour pressure, Pa at 25-C: 120

Relative vapour density (air = 1): 2.15
Relative density of the vapour/air-mixture at 20-C (air = 1): 1.0
Flash point: 72-C c.c.
Auto-ignition temperature: 415-C
Octanol/water partition coefficient as log Pow: -0.95

ENVIRONMENTAL DATA

NOTES

Depending on the degree of exposure, periodic medical examination is suggested.
Environmental effects from the substance have not been investigated adequately.
Other CAS numbers for the optical active forms are: d-Glycidol CAS 57044-25-4, l-Glycidol CAS 60456-23-7, dl-Glycidol CAS 61915-27-3.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information